

1/24

*2/24*  
*3/24*

2/24	3/24
4/24	5/24
6/24	7/24

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- 60	tgaaaagatagaataaatggcctcgtg
1	<u>ATGGCGCGGCCAGCGCTGCTGGGCGAG</u>
1	M A R P A L L G E
61	<u>GGCCAAGTTGCCCGCGGCCACAGAAGTT</u>
211	G Q V A A A T E V
121	GAAAATCTCTGCACGATAATATGGACG
41	E N L C T I I W T
181	ACTCTCAGATATTTTAGTCACTTTGAT
61	T L R Y F S H F D
241	CATCGTAAAGAGGAATTACCCCTGGAT
81	H R K E E L P L D
301	AGTGCCAATGAAAGTGAGAAGCCTAGC
101	S A N E S E K P S
361	GCTGATCCTGAGTCCGCTGTGACTGAG
121	G D P E S A V T E
421	AAGTGTTCCTGGCTCCCTGGAAGGAAT

Fig. 1(i)

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ccgaattcggcaccgagccgagggcgaggggcctgc  
CTGTTGGTGCTGCTACTGTGGACCGCCACCGTG  
L L V L L L W T A T V  
CAGCCACCTGTGACGAATTTGAGCGTCTCTGTG  
Q P P V T H L S V S V  
TGGAGTCCTCCTGAACGAGCCAGTCCAAATTGC  
W S P P E G A S P N C  
GACCAACAGGATAAGAAAAATTGCTCCAGAACT  
D Q Q D K K I A P E T  
GAGAAAATCTGTCTGCAGGTGGGCTCTCAGTGT  
E K I C L Q V G S Q C  
CCTTTGGTGAAAAAGTGCATCTCACCCCCCTGAA  
P L V K K C I S P P E  
CTCAAGTGCATTTGGCATAACCTGAGCTATATG  
L K C I W H N L S Y M  
ACAAGCCCTGACACACACTATACTCTGTACTAT

Fig. 1(ii)

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481	TGGTACAGCACCCCTGGACAAAAGTCGT
161	W Y S S L E K S R
541	ATTGCTTGTTCCTTTAAATTGACTAAA
181	I A C S F K L T K
601	ATAATGGTCAAGGATAATGCTGGGAAA <sup>11</sup>
201	I M V K D N A G K
661	TCCTATGTGAAACCTGATCCTCCACAT
221	S Y V K P D P P H
721	TTAGTGCAGTGGAAAGAATCCACAAAAT
241	L V Q W K N P Q N
781	GTCAATAATACTCAAACCGACCGACAT
261	V N N T Q T D R H
841	AATTCCGAATCTGATAGAAACATGGAG
281	N S E S D R N M E
901	GCCGACCGCTGTCTACACAGTCAGAGTA
301	A D A V Y T V R V
961	AACAAACGCTCTCTACGCTAATTCCGACCTCAA

Fig. 1 (III)

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CAATGTGAAAACATCTATAGAGAAGCTCAACAC  
Q C E N I Y R E G Q H

GTGGAACCTAGTTTTGAACATCAGAACGTTCAA  
V E P S F E H Q N V Q

ATPAGGCCATCCTGCCAAAATACTGTCTTTAACT  
I R P S C K I V S L T

ATTAAACATCTTCTCCTCAAAAATGGTGCCTTA  
I K H L L L K N G A L

TTTAGAAGCAGATGCTTAACTTATGAAGTGGAG  
F R S R C L T Y E V E

AATATTTTATAGAGGTGGAAGAGGACAAATGCCAG  
N I L E V E E D K C Q

GCTACAAGTTGTTTCCAACGCCCTGGTGTTCCTT  
G T S C F Q L P G V L

AGAGTCAAAACAAACAAGTTATGCTTTGATGAC  
R V K T N K L C F D D

Fig. 1(iv)

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1021 TTCTACACCA<sup>1</sup>CCATGTTACTCACCATT  
341 F Y T T M L L T I

1081 CTTT<sup>1</sup>TTTACCTGAAAAGGCTTAAGATC<sup>11</sup>  
361 L F Y L K R L K I

1141 ATTTT<sup>1</sup>TAAAGAAATGTTTGGAGACCAG  
381 I F K E M F G D Q

1201 ATCTATGAGAAACAATCCAAAGAAGAA  
401 I Y E K Q S K E E

1261 AAAGCAGCTCCTTGATgggggagaagtg  
421 K A A P \*

1321 gatttatttgcattctccattttgttattc

1381 ctltgaaaaacaggcagctccctaagagc

1441 ccaaaccccaaaggagctcccttccaaga

1501 ccctaaaagcagatgtttttgccaaatc

1561 accatcaatttcattctaatacaggaattg

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CCAGTCTTTGTCCGAGTGGCAGTCATAATCCTC  
P V F V A V A V I I L

ATTATATTTCTCCAATTCCTGATCCTGGCAAG<sup>1</sup>  
D I F P P I P D P G K

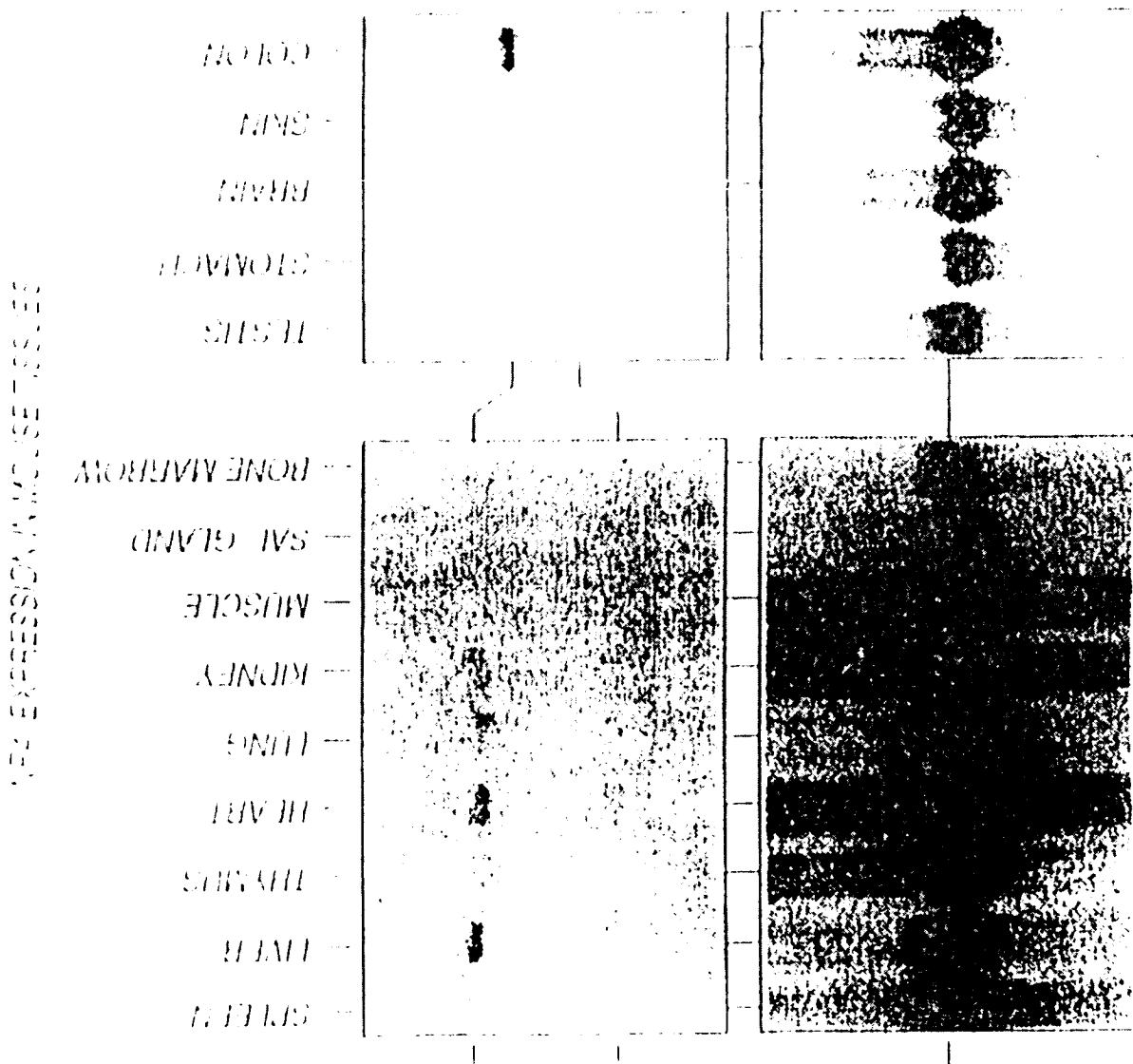
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N D D T L H W K K Y D

ACCGATTCTGTAGTGCTCATAGAAAACCTGAAG  
T D S V V L I E N L K

atttctttcttgccttcaatgtgacctgtgaa

tgggggacttggttaaatagaactgaaactact  
cacaggtcttgatgtgacttttgcattgaaaac  
aaagcaagagttcttctctgttcttggttccaat  
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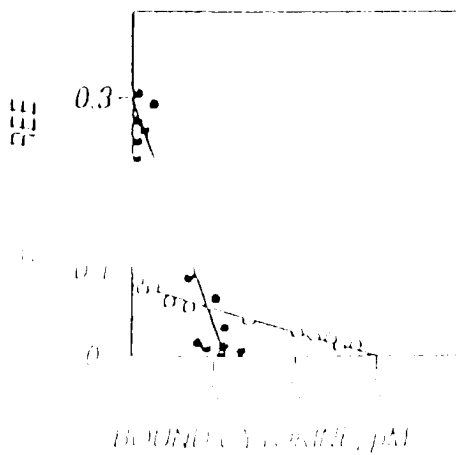
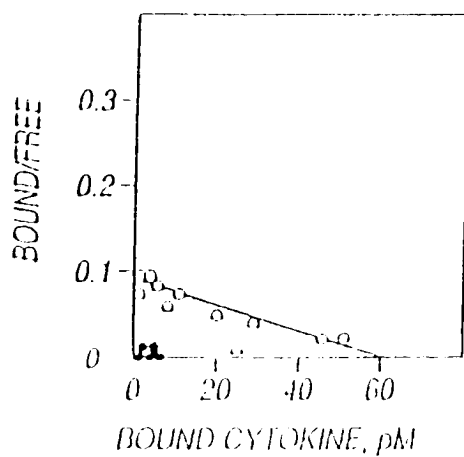
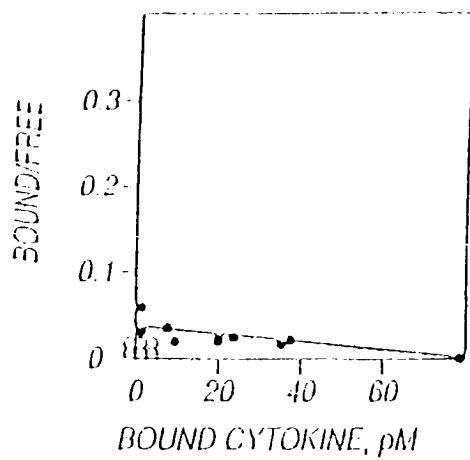
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Fig



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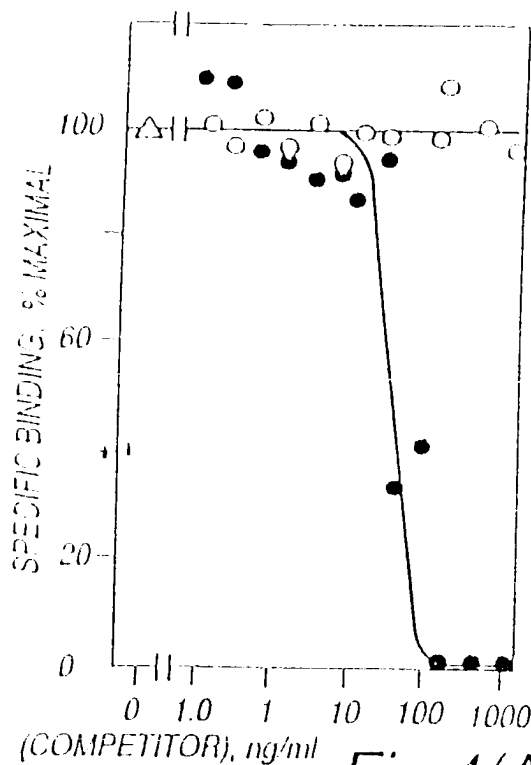


Fig. 4(A)

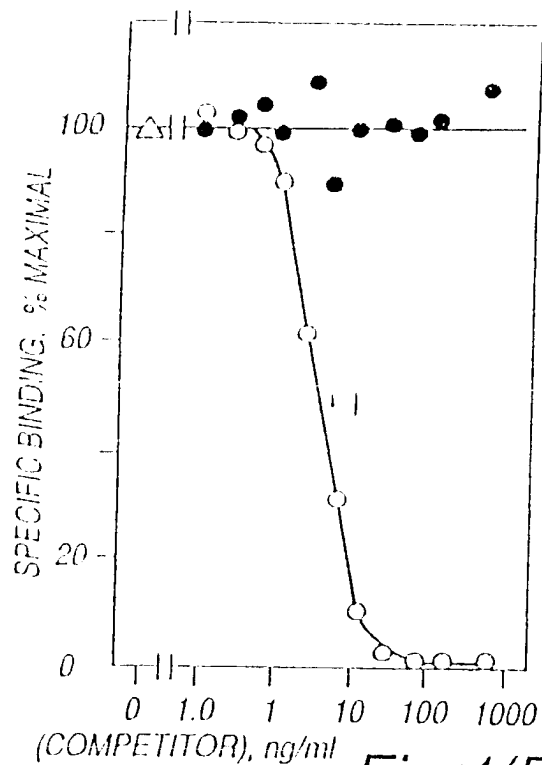
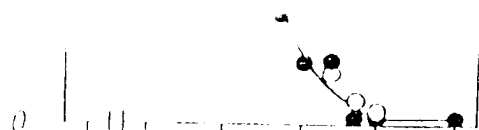
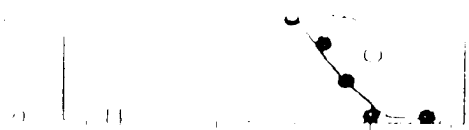
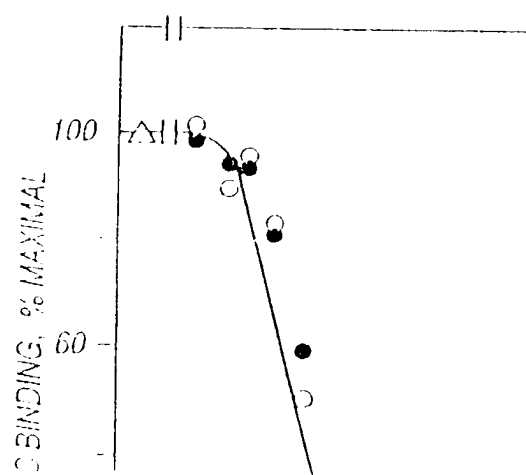
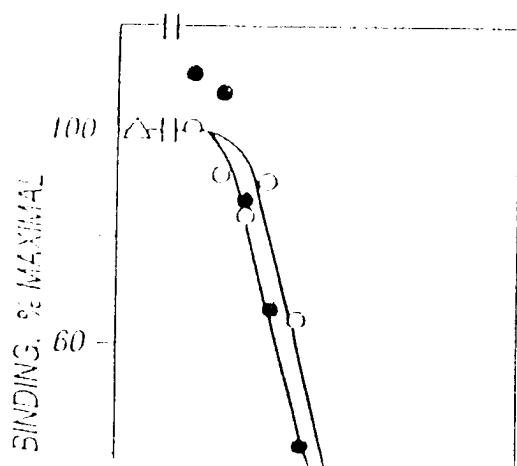


Fig. 4(B)



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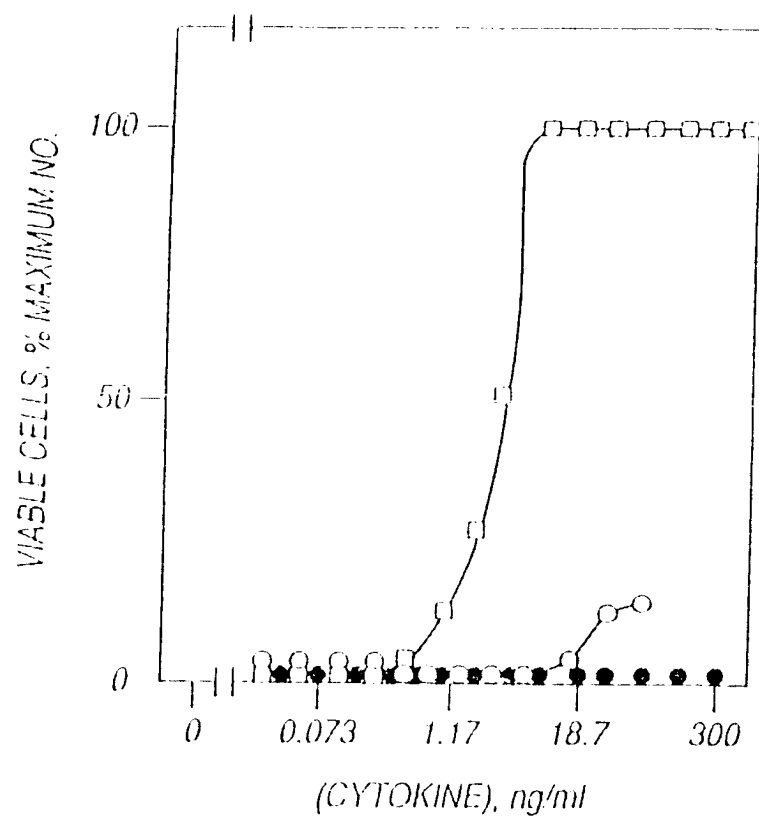
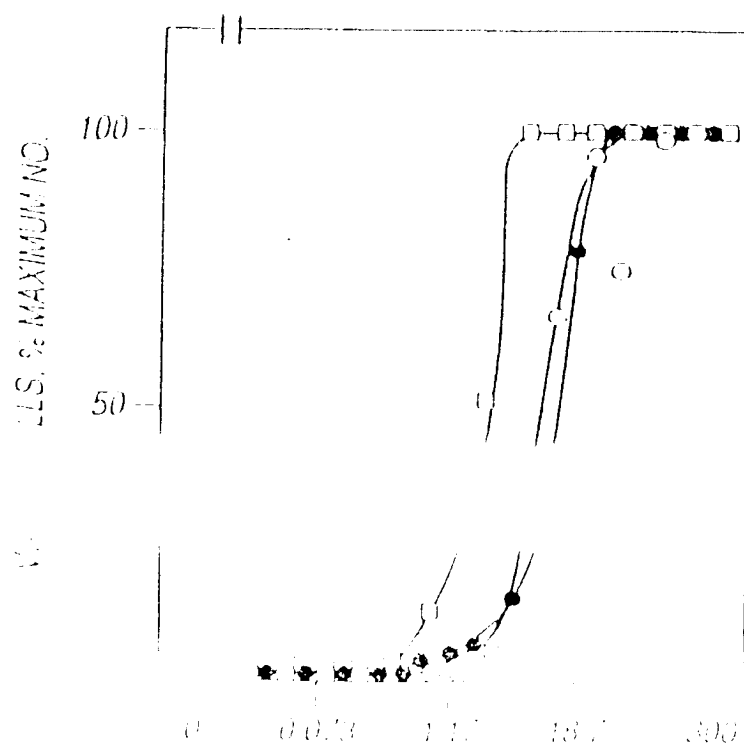


Fig. 5(A)



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CROSS SPECIES COMPARISON OF THE *IRVINGIA* LSP (a)  
GENE

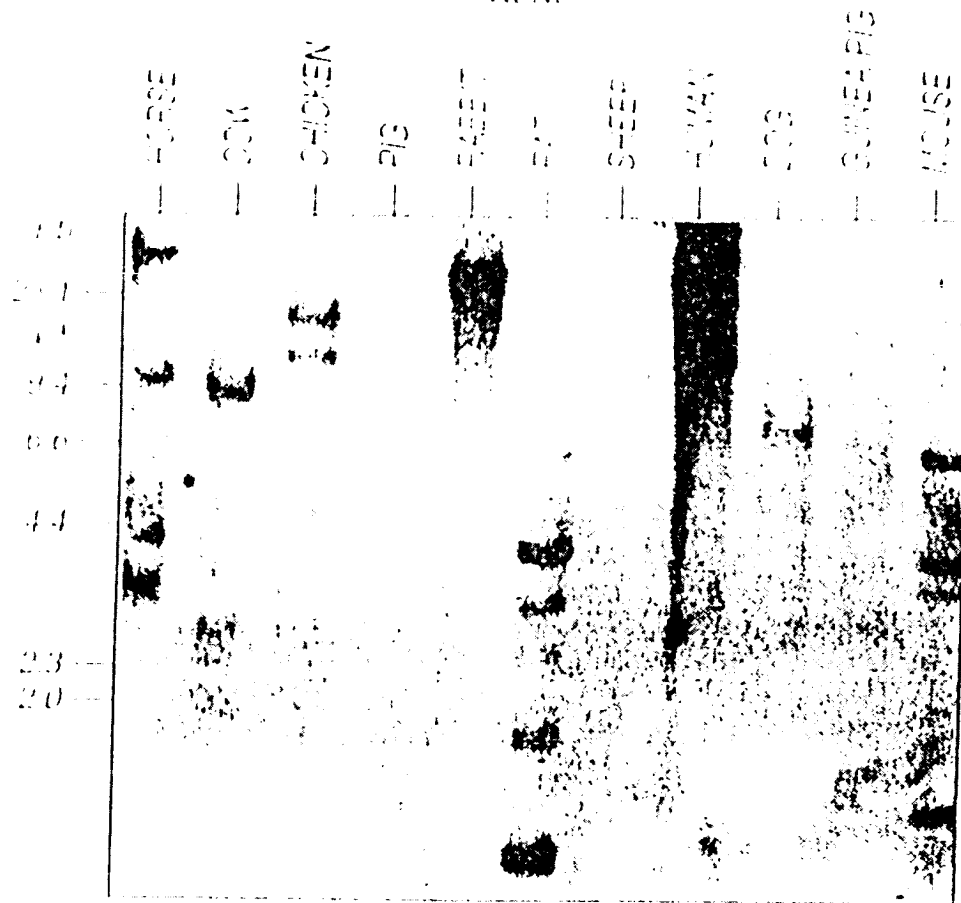


Fig. 6

(continued)

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(continued)

...

...

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20/24	21/24

Fig. 7

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H		gagtcctaacacggaccaaggagttttaac
M	- 60	tgaaaagatagaataaatggcctcgtgc
H		M E W P A R L C G
		ATGGAGTGGCCCGCGCGCCTCTGCCGGGC
		* * * *
M	11	ATGGCGCGGCCAGCGCTCCTGGGCGGAGC
M	1	M A R P A L L G E
H		G G G G A P T E T
H		GGGGGCGGGGGCGCGCCTACGGAAACTC
		* * * *
M	61	GGCCAAGTTGCCCGCGGCCACAGAAGTTC
M	21	G Q V A A A T E V
H		E N L C T V I W T
H		GAAAACCTCTGCACAGTAATATGGACAT
		* * * * *
M	121	GAAAATCTCTGCACGATAATATGGACGT
M	41	E N L C T I I W T
H		S L W Y F S H F G
H		AGTCTATGCTATTTTAGTCATTTTGGCG
		* * * * *
M	181	ACTCTCAGATATTTTAGTCACCTTTGATC

Fig. 7(i)

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acgtgcggccgggttccgagggcgagaggctgc

.....  
cgaattcggcaecgagccgagggcgagggcctgc

L W A L L L C A G G G G  
TGTGGGCGCTGCTGCTCTGCGCCGGCGGCGGGGGC.  
\* \* \* \* \*

TTTGGTGCTGCTACTCTGGACCGCCACCGTC - - -  
L L V L L L W T A T V -

Q P P V T N L S V S V  
AGCCACCTGTGACAAATTTGAGTGTCTCTGTT  
\* \* \* \* \*  
AGCCACCTGTGACGAATTTGAGCGTCTCTGTC  
Q P P V T N L S V S V

W N P P E G A S S N C  
GGAATCCACCCGAGGGAGCCACCTCAAATTGT  
\* \* \* \* \*  
GGACTCCTCCTGAAGGAGCCAGTCCAAATTGC  
W S P P E G A S P N C

D K Q D K K I A P E T  
ACAAACAAGATAAGAAAAATAGCTCCGGAAACT  
\* \* \* \* \*  
ACCAACAGGATAAGAAAAATAGCTCCAGAAACT

Fig. 7(ii)

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[illegible]

Fig. 7(iii)



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E	R	I	C	L	Q	V	G	S	Q	C
AGAGGATTTGTCTGCAAGTGGGGTCCCAGTGT										
*		*	*	*	*	*	*	*	*	*
AGAAAATCTCTCTGCCAGCTGGGCTCTCAGTGT										
E	K	I	C	L	Q	V	G	S	Q	C
11										
1'	L	V	E	K	C	I	S	P	P	E
TTTGGTTGAAAAATGCATCTCACCCCCAGAA										
*	*	*	*	*	*	*	*	*	*	*
CTTTGGTGAAAAAGTGCATCTCACCCCCCTGAA										
P	L	V	K	K	C	I	S	P	P	E
L	Q	C	I	W	H	N	L	S	Y	M
TTCAATGCATTTGGGCACAACCTGAGCTACATG										
*	*	*	*	*	*	*	*	*	*	*
TCAAGTGCATTTGGGCATAACCTGAGCTATATG										
L	K	C	I	W	H	N	L	S	Y	M
T	S	P	D	T	H	Y	T	L	Y	Y
CCAGTCCCCGACACTAACTATACTCTCTACTAT										
*	*	*	*	*	*	*	*	*	*	*
CAAGCCCTGACACACACTATACTCTGTACTAT										
T	S	P	D	T	H	Y	T	L	Y	Y
S P D T H Y T L Y Y										

Fig. 7(iv)

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			*		*	*	*	*	
M	481	TGGTACAGCAGCCTGGAGAAAAGTCGTC							
M	161	W Y S S L E K S R							
H		F G C S F D L T K							
H		TTTGCTTGTTCCCTTTGATCTGACCAAAG							
		* * * * *							
M	541	ATTGCTTGTTCCCTTTAAATTGACTAAAG							
M	181	I A C S F K L T K							
H		Q I M V K D N A G							
H		CAAATAATGCTCAAGGATAATGCAGGAA							
		* * * * *							
M	601	CAAATAATGGTCAAGGATAATGCTGGGA							
M	201	Q I M V K D N A G							
H		T S R V K P D P P							
H		ACTTCCCGTGTGAAACCTGATCCTCCAC							
		* * * * *							
M	661	ACTTCCTATGTGAAACCTGATCCTCCAC							
M	221	T S Y V K P D P P							
H		L Y V Q W E N P Q							
H		CTATATGTGCAATGGGAGAATCCACAGA							
		* * * * *							
M	721	TTATTAGTCCAGTCGAAGAATCCACAAA							

Fig. 7(v)

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```
* * * * * * * *
AATGTGAAAACATCTATAGAGAAGGTCAACAC
Q C E N I Y R E G Q H

V K D S S F E Q H S V
TGAAGGATTCCAGTTTGAACAACACAGTGTG
* * * * *
TGGAACCT - - AGTTTTC AACATCAGAACG TT
V E P - S F E H Q N V

K I K P S F N I V P L
AAATTAAACCATCCTTCAATATAGTGCCTTTA
* * * * *
AAATTAGGCCATCCTGC AAAATAGTGTCTTTA
K I R P S C K I V S L

H I K N L S F H N D D
ATATTAAAAACCTCTCCTTCACAATGATGAC
* * * * *
ATATTAAACATCTTCTCCTCAAAAATGGTGCC
H I K H L L L K N G A

H F I S R C L F Y E V
ATTTTATTAGCAGATGCCTATTTTATGAAGTA
* * * * *
ATTTTAGAAGCAGATGCTTAAC TTATGAAGTG
```

Fig. 7(vi)

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H		E	V	N	N	S	Q	T	E	T
H		GAAGTCAATAACAGCCAAACTGAGACAC								
		*	*	*	*		*	*		
M	781	GAGGTCAATAATACTCAAACCGACCGAC								
M	261	E	V	N	N	T	Q	T	D	R
H		E	N	P	E	F	E	R	N	V
H		GAGAATCCAGAATTTGAGAGAAATGTGG								
		*		*			*	*		
M	841	CAGAATTCCGAATCTGATAGAAACATGG								
M	281	Q	N	S	E	S	D	R	N	M
H		L	P	D	T	L	N	T	V	R
H		CTTCCTGATACTTTGAACACAGTCAGAA								
		*		*			*	*	*	
M	901	CTTGCCCGACGCTGTCTACACAGTCAGAG								
M	301	L	A	D	A	V	Y	T	V	R
H		D	D	K	L	W	S	N	W	S
H		GATGACAAACTCTGGAGTAATTGGAGCC								
		*		*	*	*	*		*	*
M	961	GACAACAAACTCTGGAGTGATTGGAGTG								
M	321	D	N	K	L	W	S	D	W	S
H		D	D	K	L	W	S	N	W	S

Fig. 7(vii)

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H N V F Y V Q E A K C  
ATAATGTTTTCTACGTCCAAGAGGCTAAATGT  
\* \* \* \* \*  
ATAATATTTTATAGAGGTTGAAGAGGACAAATCC  
H N I L E V E E D K C  
E N T S C F M V P G V  
AGAATACATCTTGTTCATGCTCCCTGGTGTT  
\* \* \* \* \*  
AGGGTACAAGTTGTTTCCAACCTCCCTGGTGTT  
E G T S C F Q L P G V  
I R V K T N K L C Y E  
TAAGAGTCAAAAACAAATAAGTTATGCTATGAG  
\* \* \* \* \*  
TAAGAGTCAAAAACAAACAAGTTATGCTTTGAT  
V R V K T N K L C F D  
Q E M S I G K K R N S  
AAGAAATGAGTATAGCTAAGAAGCCGCAATTCC  
\* \* \* \* \*  
AAGCACAGAGTATAGGTAAGGAGCAAAACTCC  
E A Q S I G K E Q N S  
V P V T V A G A I I V

Fig. 7(viii)

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			*	*		*	*	*	*
M	1021	ACCTTCTACACCACCATGTTACTCACCA							
M	341	T F Y T T M L L T							
H		L L L Y L K R L K							
H		CTCCTGCTTTACCTAAAAAGGCTCAAGA							
		* * * * *							
M	1081	CTCCTT TTTTACCTGAAAAGGCTTAAGA							
M	361	L L F Y L K R L K							
H		K I F K E M F G D							
H		AAGATTTTTTAAAGAAATGTTTGGAGACC							
		* * * * *							
M	1141	AAGATTTTTTAAAGAAATGTTTGGAGACC							
M	381	K I F K E M F G D							
H		D I Y E K Q T K E							
H		GACATCTATGAGAAGCAAACCAAGGAGG							
		* * * * *							
M	1201	GACATCTATGAGAACAATCCAAAGAAG							
M	401	D I Y E K Q S K E							
H		K K A S Q *							
H		AAGAAAGCCTCTCAGTGATggagataat							
		* * *							
M	1261	AAGAAAGCAGCTCCTTGATgggggagaag							
M	421	K K A S Q *							

Fig. 7(ix)

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```

      *   *       *   *       *       *
TTCCAGTCTTTGTGCGCAGTGGCAGTCATAATC
I   P   V   F   V   A   V   A   V   I   I

I   I   I   F   P   P   I   P   D   P   G
TTATTATATTCCCTCCAATTCCTGATCCTGGC
*   *   *   *   *   *   *   *   *   *
TCATTATATTTCCCTCCAATTCCTGATCCTGGC
I   I   I   F   P   P   I   P   D   P   G

Q   N   D   D   T   L   H   W   K   K   Y
AGAATGATGATACTCTGCACTGGAAGAAGTAC
*   *   *   *   *   *   *   *   *   *
AGAATGATGATACCCTGCACTGGAAGAAGTAT
Q   N   D   D   T   L   H   W   K   K   Y

E   T   D   S   V   V   L   I   E   N   L
AAACCGACTCTGTACTGCTGATAGAAAACCTG
*   *   *   *   *   *   *   *   *   *
AAACCGATTCTGTACTGCTGATAGAAAACCTG
E   T   D   S   V   V   L   I   E   N   L

ttatttttaccttcaactgtgaccttgagaaga
tgattttctttctttgccttcaatgtgacctgt

```

Fig. 7(x)

Figure 1 illustrates the progression of a child's drawing of a person from age 2 to age 7. The drawings are arranged in a 3x3 grid. The first row shows a simple stick figure with a head, torso, and limbs. The second row shows a more detailed figure with a face, hair, and clothing. The third row shows a highly detailed figure with facial features, hair, and clothing. The drawings are labeled with ages 2, 3, 4, 5, 6, and 7 in the bottom right corner of each cell.

